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Application No. 10/674,157
Amendment dated May 2, 2007
Reply to Office Action of February 6, 2007

Docket No.: 013436.0278PTUS
(Dontas 1-1)

REMARKS

Claims 1 – 8 are pending in this application. In an Office Action mailed 06 February 2007, the specification was objected to because of an informality. The informality has been amended herein.

In an Office Action mailed 06 February 2007, claims 1 – 8 have been rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter. Additionally, claims 4 and 8 have been rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Also, claims 1 – 3 and 5 – 7 have been rejected under 35 USC 103(a) as being unpatentable over Applicants' admitted prior art drawing of Figure 5 in view of U.S. Patent No. 6,023,724 issued to Bhatia. Additionally, claims 4 and 8 have been rejected under 35 USC 103(a) as being unpatentable over Applicants' admitted prior art drawing of Figure 5 and Bhatia as applied to claims 1 – 3 and 5 – 7 above, and further in view of U.S. Patent Application Publication No. 2002/0116523 by Warrior. Applicant has cancelled claims 3, 4, 7, and 8 and has amended claims 1, 2, 5, and 6.

The Examiner rejected claims 1 – 8 under 35 USC 101 because the claimed invention is directed to non-statutory subject matter, noting with respect thereto:

Regarding claim 1, which is directed to a network address translation system. In order for the claimed subject matter to be statutory, it must have a useful, concrete, and tangible result. In this case, the result is useful and concrete, but it is not tangible. The mere act of assigning an IP address does not store anything, nor does it make any information available to the user.

Applicants have amended independent claims 1 and 5 to provide a tangible result and thereby to traverse the Examiner's rejections of claims 1 – 8 under 35 USC 101. Applicants, therefore, believe that claims 1, 2, 5, and 6 are now allowable under 35 USC 101.

The Examiner rejected claims 4 and 8 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, noting with respect thereto:

Regarding claims 4 and 8, which claim that if a data transmission is sent from the Protocol Engine (PE) to the Function Management System (FMS), the PE's

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private IP address should be appended as the destination address for the data transmission. This would in effect cause the PE to be unable to communicate with the FMS, as all transmissions it would attempt to send to the FMS would be routed back to the PE.

The examiner's interpretation of the claim is that the PE's private address was meant to be appended as the source address for the data transmission.

Applicants appreciate the Examiner's germane remarks and have amended claims 4 and 8 to correct this error, have incorporated the structure of these claims into their base independent claims, and have canceled these claims as a result.

The Examiner rejected claims 1 – 3 and 5 – 7 under 35 USC 103(a) as being unpatentable over Applicants' admitted prior art drawing of Figure 5 in view of U.S. Patent No. 6,023,724 issued to Bhatia and claims 4 and 8 under 35 USC 103(a) as being unpatentable over Applicants' admitted prior art drawing of Figure 5 and Bhatia and further in view of U.S. Patent Application Publication No. 2002/0116523 by Warriar. The Examiner noted with respect to claim 1:

Figure 5 discloses:

A network address translation system (fig. 5) for isolating internal IP traffic from external IP traffic in the Inter-Working Function of a Global System for Mobile Communications network (Fig. 5, 301), comprising:

network means for interconnecting (Fig. 5, Ethernet Switch 314) an Inter-Working Function Protocol Engine (Fig. 5, 312) and an Inter-Working Function Management System (Fig. 5, 311), located in said Inter-Working Function;

external IP address means for assigning said port of said Inter-Working Function Protocol Engine with a public IP address for access from a source located external to said Inter-Working Function (321, since the address has been assigned, means for assigning are inherent);

L2TP network server means (303) connected to said network means (314) for interconnecting said network means with the Internet. (Fig. 5)

Admitted prior art Figure 5 discloses all of the limitations of claims 1-3 and 5-7 except for internal IP address means, routing means, and address means for appending.

Regarding the missing limitations, Bhatia teaches:

internal IP address means for assigning a port of said Inter-Working Function Protocol Engine with a private IP address for use exclusively on said network means; (Col. 11, lines 59-62 state that LAN modem 300 assigns a private address to both terminals 10e and 10f)

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routing means for assigning a one of said private and public IP addresses to data transmissions received at said network means and associated with said port of said Inter-Working Function Protocol Engine. (Col. 12, lines 10-25 describe the routing means that assign IP addresses to data transmissions received.)

address means for appending said assigned public IP address to said data transmission as a source address when said port of said Inter-Working Function Protocol Engine is a source of said data transmission to said L2TP network server means. (Col. 12, lines 17-23 discloses that packets heading to the ISP have their address changed (appended) to use the public IP address.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the admitted prior art of Figure 5 to include the use of the IP address means, routing means and address means of Bhatia in order to significantly reduce time and costs associated with establishing, configuring and using a LAN for a workgroup as well as with connecting each client therein to a remote network server provider. (Bhatia, Col. 4, lines 27-30)

Applicants have canceled claims 3, 4, 7, and 8 and have incorporated the limitations of these claims into their corresponding independent claims. In addition, the recitation of independent claims 1 and 5 have been amended.

Applicants' network address translation system operates in a Global System for Mobile Communications network and isolates internal IP traffic from external IP traffic in the Inter-Working Function (IWF) of a Global System for Mobile Communications network by assigning dual IP addresses for the Inter-Working Function Protocol Engine. The Inter-Working Function Protocol Engine includes one or more Ethernet Ports, each of which is assigned a private IP address, to connect to the Ethernet Switch as well as a public IP address of the customer's network, used to connect to L2TP Network Server.

Existing wireless network configurations isolate internal IP traffic from external IP traffic in the Inter-Working Function (IWF) of a Global System for Mobile Communications network. In particular, the Inter-Working Function is used to process both customer-based Internet traffic and Operations, Administration, Maintenance, and Provisioning functions. The Operations, Administration, Maintenance, and Provisioning functions should not be accessible via a public Internet address while the customer-based Internet presence is accessible via a public Internet address. Existing systems use both hardware and software to separate the two types of IP traffic within the Inter-Working Function (IWF) of a Global System for Mobile Communications network.

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Bhatia discloses an ISDN LAN modem that is suited for small user environments and which contains an internal ISDN router having a self-contained network hub for inter-connecting multiple network devices, such as workstations, to each other through a local area network, and for permitting each of those devices to each gain access through the router to any one of a number of different remote networks. The LAN modem communicates network failure messages to a host workstation connected to the LAN by intercepting and responding to various DNS (domain name system) messages issued by that workstation and intended for a remote DNS server. Specifically, the LAN modem supplies its own network (IP) address in response to these messages, thus assuming a role of both a remote DNS server and a remote web server in order to implement a mechanism through which a fault-specific web page can be dynamically constructed and downloaded to the workstation for subsequent display, through a browser executing thereat. The page, once rendered, provides a specific message pertinent to the failure.

Warrior discloses a system for sending a data packet through a network. The network has public and private realms separated by an interface device. A client in the private realm performs the method. The method includes determining if a destination address of the data packet corresponds to the private realm or to the public realm and retrieving a source address for the client based on the destination address of the packet. The method also includes assigning a retrieved address to be the source address of the data packet.

Applicants' amended independent claims now recite the assignment of private IP addresses to all of the ports of the Inter-Working Function Protocol Engine for use exclusively in communicating with the Inter-Working Function Management System and concurrently assigning public IP addresses to selected ports of the Inter-Working Function Protocol Engine, on the same side of a network, for communicating with destinations external to the system. The prior art teaches that all devices on one side of the network are assigned private IP addresses, and those on the other side of the network are assigned public IP addresses.

In view of the above amendments and remarks, Applicants believe the pending application is in condition for allowance. Applicants believe no fee is due with this response.

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However, if a fee is due, please charge our Deposit Account No. 50-1848, under Order No.
013436.0278PTUS from which the undersigned is authorized to draw.

Respectfully submitted,
PATTON BOGGS LLP

Dated: 7 MAY 2007

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